



PAYMENT FOR ECOSYSTEM SERVICES IN BRAZIL: BETWEEN EFFICIENCY AND EQUITY

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Issues

- Pressures on Brazilian ecosystems;
- PES and its potential to reduce pressures;
- Efficiency and equity in PES schemes;
- Two Brazilian experiences of PES;
- Conclusions.

Pressures on Brazilian ecosystems



- The first megabiodiverse country;
- Six continental biomes: Amazon; Cerrado (Brazilian Savanna); Atlantic Forest; Caatinga; Pantanal and Pampas.
- Loss and fragmentation of those biomes Atlantic forest: less than 7% remains;
- Cerrado: lost of half of original area in last 50 years;
- Pressures in the border of Amazon forest.

How to address ecosystem loss?

- Increase in governance (but I will not discuss that);
- Creation of incentives for preservation in coexistence with command and control policies;
- Payment for ecosystem services as a potential to incentivize preservation and also increase life standards of landowners and landusers;
- PES: Economic instrument;
- PES experiences: Funds (governmental or NGOs) and by markets.

Contribution of PES for sustainability

- Strong potential to increase conservation and improve the relationship of landowners and landusers with the environment;
- Potential to fulfil the conditions for sustainability (environmental, economic and social);
- To assure that contribution: efficient and equitable.

PES and efficiency

Law and economic approach:

- Efficiency as the allocation which brings greatest welfare in society.
- Efficiency as implementation of legal rules for the least cost.

Paper approach:

- Efficiency as additionality. More environmental benefits for the amount invested
- Important question: how to define additionality for PES schemes?

PES and equity

- Poor landowners or land users (small farmers; indigenous and traditional communities)
- Opportunity to reduce poverty while incentivizing preservation
- Equity as assuring access of those groups to PES schemes
- Equity as allowing empowerment of those groups to shape the schemes.

Brazilian experiences

- Experiences in Atlantic forest:
- Water conservation project (Extrema/State of Minas Gerais);
- RPPN (Natural Patrimony Private Reserve) (State of Paraná).



Water conservation project (Extrema)

- Volunteer program based on defined goals;
- Four years contracts between supplier and municipality;
- Reforestation of riparian areas and other degraded areas;
- Land use management in order to avoid soil erosion, the fencing of forest areas, etc.
- Monitoring:
 - Suspension of contract if goals are not achieved;
 - Periodical analysis of water conditions.

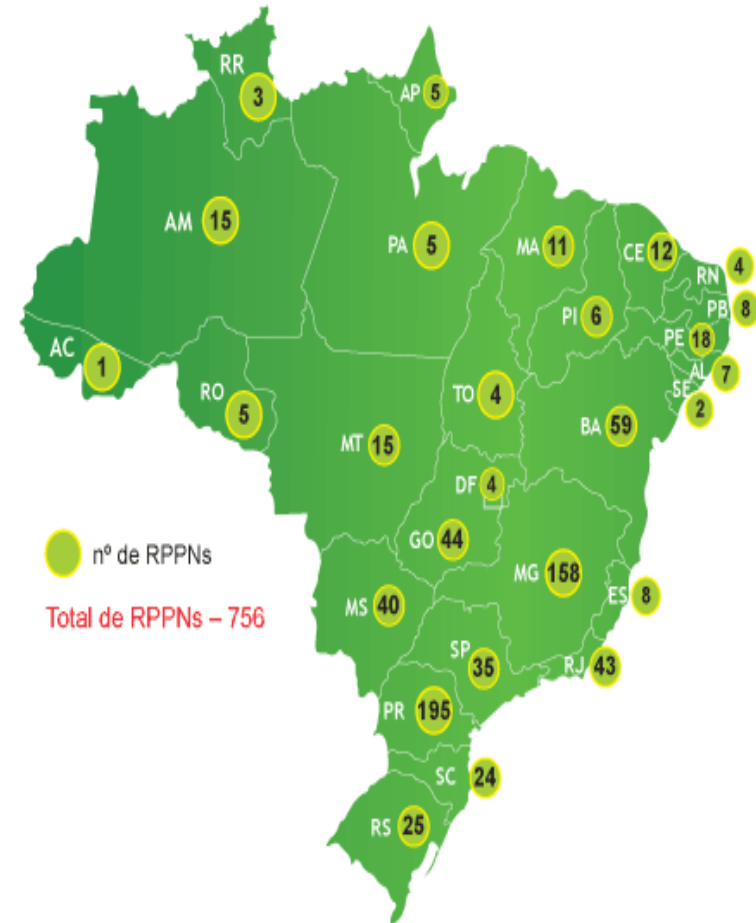


Water conservation project (Extrema)

- Average month income of landowners between US\$ 315,00 and US\$ 500,00.
- PES: Income increase;
- Landowners were used to a standard use of the land;
- PES program allows an economic viable alternative which less environmental impacts;
- Future developments. Intention to increase the allocation of the costs to beneficiaries of the services (companies; dairy product certificates, etc).

Natural Patrimony Private Reserve/ Paraná

- Percentage of ICMS (state tax) budget is directed to cities which increased protected areas;
- The cities may transfer part of it to land owners of Natural Patrimony Private Reserve (private protected areas);
- Financial resources must be used in conservation;
- Requirement of inscription in association of RPPN landowners.



Conclusions

1) Water Conservation Program

Efficiency:

- a) improvement in water quality and availability.
- b) rehabilitation of degraded areas.

Challenges: studies that evaluates reforestation with native species are scarce, impairing monitoring.

Equity:

- a) Creation of more sustainable alternatives for landuse.
- b) Valorization of landowners as important stakeholders for conservation.
- c) Capacity building for landowners and communities for a sustainable use of natural resources.

Conclusions

2) Natural Patrimony Private Reserve

Efficiency:

- a) Increase of the number of private protected areas.
- b) Increase of financial resources for conservation.
- c) Critics: Lack of flexibility of the use of money may desincentivate the creation of new areas.

Equity:

- a) Better distribution of the burden of conservation, since landowners create RPPN voluntarily. Now they get a compensation for the benefits they create.
- b) Strengthening of the landowners organization through the associations.

THANK YOU FOR YOU ATTENTION

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